INDEX TO VOLUME XLII, 1930.

PAGE

Accumulators for Use on Shipboard (Note) 205
Arrow, H. M. Destroyer (Note) 348
Automatic Steering Tests, by N. Minorsky 285
Baird, George Washington, Rear Admiral, an Appreciation by W. M. McFarland 718
Balance, Dynamic, of Machinery, by F. A. Tusler 426
Balancing of Rotating Masses, by H. G. Eberhart 564
Bauer, Dr. G., the Machinery Installations of the Liner *Bremen* and its Predecessors (Note) 679
Boiler and Turbine, High Pressure, New (Note) 536
Boiler Safety Valve, Relation of Blowdown to Lift and Capacity in, by R. L. Hicks 263
Boilers, High Pressure, for the S. S. *King George V* (Note) 668
Boilers, Marine, Combustion in the Furnaces of, by T. B. Stillman 623
Boilers, Welded (Note) 196
Book Reviews 216, 356, 547
Bremen, S. S. (Note) 485
Bremen, The Liner and Its Predecessors, Machinery Installations of, by Dr. G. Bauer (Note) 679
Bruce, Bryson, Commander, U. S. N., Building Gunboats in China. Description and Trials of U. S. S. *Luzon, Mindanao, Panay* and *Oahu* 83
Charlton, A. M., Commander, U. S. N., From General Board to Trial Board. The Evolution of a Man-of-War 39
Chester, U. S. S. Description and Trial Data, by J. K. Esler 651
Combustion in the Furnaces of Marine Boilers, by T. B. Stillman 623
Condenser Experiment, by J. S. Malseed 559
Condenser Scoops, Theoretical and Experimental Study of, by H. F. Schmidt 1
Condenser Tube Failures, by H. G. Eberhart 72
Cooke, J. F., U. S. S. *Louisville* and U. S. S. *Chicago* Steering Gears 399
Davis, H. F. D., Commander, U. S. N., Increase in S.H.P. and R.P.M. Due to Fouling 155
Davis, H. F. D., Commander, U. S. N., Approximate Heat and Water Losses 167
Destroyer *Arrow*, H. M. (Note) 348

PAGE

Diesel Engine, High Speed, Two Cycle, Double Acting, for Small and Medium Power, Study of, by A. M. Proctor 146
Diesel Engines in Submarines, by E. Nibbs 382
Diesel Engines, Light Weight, by O. D. Treiber 395
Diesel Engine Situation Today, by Max Rotter 367
Diesel Machinery, Geared (Note) 342
Dinger, H. C., Captain, U. S. N., Discussion of Paper on Steam Turbine Electric Drive for Merchant Vessels, page 252, May, 1929, JOURNAL 316
Dusinberre, G. M., Lieutenant, U. S. N., Some Convenient Heat Transfer Formulas Applying to Fuel Oil Heaters 268
Dynamic Balance of Machinery, by F. A. Tusler 426
Eberhart, H. G., Lieutenant, U. S. N., Condenser Tube Failures 72
Eberhart, H. G., Lieutenant, U. S. N., Progress in the Field of Steam Engineering 455
Eberhart, H. G., Lieutenant, U. S. N., The Balancing of Rotating Masses 564
Electric Drive, Steam Turbine for Merchant Vessels, Discussion of Paper on, page 252, May, 1929, JOURNAL, by H. C. Dinger 316
Electrical Power, Naval, Commercial Use of U. S. S. *Lexington* Relieves Tacoma Power Shortage, by H. L. White 311
Electrolytic Effect of Variable Concentration, Temperature and Turbulence on Dissimilar Metals Immersed in Sea Water, by G. B. Vroom 549
Engineering, Marine (Note) 334
Engineering, Marine, Progress in (Note) 178
Engineering, Naval, the Effect of Disarmament and Treaty Limitations Upon, by C. J. Lamb 641
Engineering, Steam, Progress in the Field of, by H. G. Eberhart 455
Esler, J. K., Lieutenant Commander, U. S. N., Construction Description and Official Preliminary Acceptance Trial Data of U. S. S. *Salt Lake City* 223
Esler, J. K., Lieutenant Commander, U. S. N., Description and Trial Data of U. S. S. *Northampton, Chester* and *Houston* 651
Europa, Norddeutscher Lloyd Liner (Note) 321
Fire Brick Material, Plastic Installation of, by R. L. Hicks 275
Fischer, George, Cast Steel in Submarine Diesels, by J. O. Huse 600
Föttinger Torsion Meter, The (Note) 205
Fouling, Increase in S.H.P. and R.P.M., Due to, by H. F. D. Davis 155
Fuel and Lubricating Oil As the Cause of Engine Troubles (Note) 506
Geared Diesel Machinery (Note) 342
Griffiths, C. A., Lieutenant, U. S. N., Discussion of Paper on Steam Turbine Lubrication, by S. M. Riis 480
Gyro and Light Lubricating Oil, New Type, by Roy C. Smith, Jr. 406

PAGE
Heat and Water Losses, Approximate, by H. F. D. Davis ... 167
Heat Transfer Formulas Applying to Fuel Oil Heaters, Some Convenient, by G. M. Dusinberre ... 268
Heaters, Fuel Oil, Some Convenient Heat Transfer Formulas Applying to, by G. M. Dusinberre ... 268
Hicks, R. L., Lieutenant, U. S. N., Relation of Blowdown to Lift and Capacity in a Boiler Safety Valve ... 263
Hicks, R. L., Lieutenant, U. S. N., Installation of Plastic Fire Brick Material ... 275
High-Pressure Turbine and Boiler, New (Note) ... 536
Houston, U. S. S., Description and Trial Data, by J. K. Esler ... 651
Huse, J. O., Lieutenant, U. S. N., George Fischer Cast Steel in Submarine Diesels ... 600
Irish, J. M., Commander, U. S. N., Simplified Propeller Design ... 242
King George V, S. S., High-Pressure Boilers for (Note) ... 668
Lafayette, Transatlantic Liner (Note) ... 524
Lamb, C. J., Lieutenant, U. S. N. R., The Effect of Disarmament and Treaty Limits Upon Naval Engineering ... 641
Leviathan, Hull Damage Repair to (Note) ... 544
Lexington, U. S. S., Relieves Tacoma Power Shortage, Naval Electrical Power in Commercial Use, by H. D. White ... 311
Liners, Fast Transatlantic, Propulsion of (Note) ... 193
Locomotive, 1200 B.H.P. Diesel-Compressed Air (Note) ... 540
Luzon, Mindanao, Panay and *Oahu*, U. S. S., Trials and Description of. Building Gunboats in China, by Bryson Bruce ... 83
Lubricating Oil and Fuel as the Cause of Engine Troubles (Note) ... 506
Lubricating Oil, and Gyro Oil, New Type, by Roy C. Smith, Jr. ... 406
Lubrication, Steam Turbine, by S. M. Riis ... 475
Malseed, J. S., Condenser Experiment ... 559
Marine Engineering (Note) ... 334
Marine Engineering, Progress in (Note) ... 178
Marine Oil Engine Progress in 1929 (Note) ... 186
McFarland, W. M., Rear Admiral George Washington Baird, An Appreciation ... 718
Metal Spraying by Compressed Air (Note) ... 204
Mindanao, Luzon, Panay and *Oahu*, Description and Trials of. Building Gunboats in China, by Bryson Bruce ... 83
Minorsky, N., Automatic Steering Tests ... 285
Motorship, Largest British (Note) ... 514
Naval Construction in 1929 (Note) ... 171
Naval Engineering, The Effect of Disarmament and Treaty Limitations Upon, by C. J. Lamb ... 641
Nibbs, E., Diesel Engines in Submarines ... 382
Northampton, U. S. S., Description and Trial Data, by J. K. Esler ... 651

PAGE

Oahu, Luzon, Mindanao, Description and Trials of. Building Gunboats in China, by Bryson Bruce 83
Oil, Gyro and Light Lubricating, New Type, by Roy C. Smith, Jr. 406
Oil Engine, Marine, Progress in 1929 (Note) 186
Oily Water Separator, New Type (Note) 346
Oscillations, Fast, Recording (Note) 206
Panay, Luzon, Mindanao and *Oahu,* Description and Trials of. Building Gunboats in China, by Bryson Bruce 83
Plastic Fire Brick Material, Installation of, by R. L. Hicks 275
Proctor, A. M., Captain, U. S. N. (Retired), A Study of the High Speed, Two Cycle Double Acting Diesel Engine for Small and Medium Power 146
Progress in the Field of Steam Engineering, by H. G. Eberhart 455
Progress in Marine Engineering (Note) 178
Progress of Marine Oil Engine in 1929 (Note) 186
Propeller Analysis and Design, Dyson's Method Applied to Motor Boats, by E. A. Stevens, Jr. 102
Propulsion of Fast Transatlantic Liners (Note) 193
Propulsion, Turbine, Modern (Note) 325
Propeller Design, Simplified, by J. M. Irish 242
R 101, The Destruction of (Note) 665
Reducing Valves, by H. C. Rule, Jr. 589
Revolutions per Minute and S.H.P., Increase in Due to Fouling, by H. F. D. Davis 155
Riis, S. M., Steam Turbine Lubrication 475
Rotating Masses, Balancing of, by H. G. Eberhart 564
Rotter, Max, The Diesel Engine Situation Today 367
Rule, H. C., Jr., Lieutenant, Pressure Reducing Valves 589
Safety of Life and Property at Sea (Note) 348
Safety Valve, Boiler, Relation of Blowdown to Lift and Capacity in, by R. L. Hicks 263
Salt Lake City, U. S. S., Construction, Description and Official Preliminary Acceptance Trial Data, by J. K. Esler 223
Selsyn Equipments, Principles of and Their Operation (Note) 671
Separator, Oily Water, New Type (Note) 346
Schmidt, H. F., Theoretical and Experimental Study of Condenser Scoops 1
Scoops, Condenser, Theoretical and Experimental Study of, by H. F. Schmidt 1
Shaft Horsepower and R. P. M., Increase in Due to Fouling, by H. F. D. Davis 155
Smith, Roy C., Jr., Commander, U. S. N., New Type Gyro and Light Lubricating Oil 406
Spraying, Metal, by Compressed Air (Note) 204

PAGE
Steam Engineering, Progress in the Field of, by H. G. Eberhart 455
Steam Turbine Lubrication, Discussion of Paper by S. M. Riis by C. A. Griffiths 480
Steel, Cast, George Fischer, in Submarine Diesels, by J. O. Huse 600
Steering, Automatic, Tests, by N. Minorsky 285
Steering Gears, U. S. S. *Louisville* and U. S. S. *Chicago*, by J. F. Cooke 399
Stevens, E. A., Jr., Dyson's Method of Propeller Analysis and Design Applied to Motor Boats 102
Stillman, T. B., Combustion in the Furnaces of Marine Boilers 623
Tacoma Power Shortage, U. S. S. *Lexington* Relieves. Naval Electrical Power in Commercial Use, by H. L. White 311
Torsion Meter, Föttinger (Note) 205
Torsion Meter, An Interesting New (Note) 538
Transatlantic Liners, Fast, Propulsion of (Note) 193
Treaty Limitations, Effect on Naval Engineering, by C. J. Lamb 641
Treiber, O. D., Light Weight Diesel Engines 395
Trial, *Salt Lake City*, U. S. S., by J. K. Esler 223
Trial Board, From General Board to. Evolution of a Man-of-War, by A. M. Charlton 39
Trials and Description of U. S. S. *Luzon, Mindanao, Panay* and *Oahu*, Building Gunboats in China, by Bryson Bruce 83
Tube Failures, Condenser, by H. G. Eberhart 72
Turbine Lubrication, Steam, by S. M. Riis 475
Turbine Propulsion, Modern (Note) 325
Turbine and Boiler, High Pressure, New (Note) 536
Tusler, F. A., Lieutenant (CC), U. S. N., Dynamic Balance of Machinery 426
Valve, Safety, Boiler, Relation of Blowdown to Lift and Capacity in, by R. L. Hicks 263
Valves, Reducing, by H. C. Rule, Jr. 589
Vroom, G. B., Lieutenant Commander, Electrolytic Effect—Dissimilar Metals 549
Water and Heat Losses, Approximate, by H. F. D. Davis 167
Welded Boilers (Note) 196
Westinghouse, George, Industry Dedicates a Shrine to (Note) 662
White, H. L., Commander, U. S. N., Naval Electrical Power in Commercial Use. U. S. S. *Lexington* Relieves Tacoma Power Shortage.. 311